

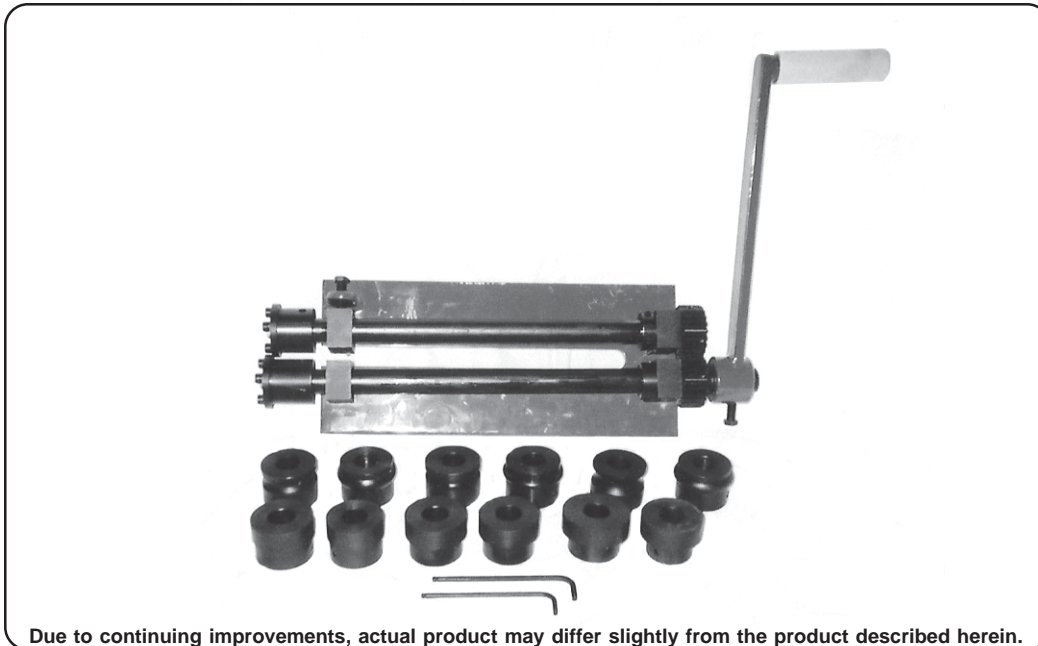
**CENTRAL MACHINERY**

®

# 12" BEAD ROLLER KIT

**Model 93364**

## ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011  
Visit our Web site at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY,  
READ AND UNDERSTAND ALL WARNINGS  
AND INSTRUCTIONS BEFORE USE.**

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**For technical questions, please call 1-800-444-3353.**

## PRODUCT SPECIFICATIONS

Item	Description
Maximum Throat Depth Capacity	12"
Maximum Thickness Capacity	18 Gauge
Accessories	1/4", 3/8", 1/2" Bead Rollers 1/16", 1/8", 1/4" Flange Rollers Rolling Shear Shearing Mandrel
Base Dimensions	14-5/8" L x 6-3/8" W
Unit Weight	38.3 Pounds

## SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

## GENERAL SAFETY RULES

When unpacking, check to make sure all the parts shown in the **Parts List on page 11** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the front cover of this manual as soon as possible.

## GENERAL SAFETY RULES

### IMPORTANT SAFETY INSTRUCTIONS

 **WARNING!**

**READ AND UNDERSTAND ALL INSTRUCTIONS**  
Failure to follow all instructions detailed in this manual may  
result in serious personal injury.

**SAVE THESE INSTRUCTIONS**

## WORK AREA

1. **Keep your work area clean and well lit.** Cluttered and dark work areas invite accidents.

2. **Keep bystanders, children, and visitors away while operating the Bead Roller Kit.** Distractions can cause you to lose control.

### **PERSONAL SAFETY**

3. **Stay alert.** Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
4. **Dress properly.** Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
5. **Do not overreach.** Keep proper footing and balance at all times. Proper footing and balance enables better control of the Bead Roller Kit in unexpected situations.
6. **Always wear eye and hand protection.** Wear ANSI approved safety impact goggles and heavy duty work gloves when assembling and using this product.


### **TOOL USE AND CARE**

7. **Do not force the Bead Roller Kit.** Use the correct product for your application. The correct product will do the job better and safer at the rate for which it is designed.
8. **Store idle tools and equipment out of reach of children and other untrained people.** Tools and equipment are dangerous in the hands of untrained users.
9. **Maintain the Bead Roller Kit with care.** Keep this product clean. A properly maintained tool is easier to control. Do not use damaged tools and equipment. Tag damaged tools and equipment "Do not use" until repaired.
10. **Check for misalignment or binding of moving parts, loose or broken parts, and any other condition that may affect the Bead Roller Kit's operation.** If damaged, have the Bead Roller Kit serviced before using. Many accidents are caused by poorly maintained tools and equipment.
11. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one product may become hazardous when used on another product.

## SERVICE

12. **Bead Roller Kit service must be performed only by qualified service technician.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
13. **When servicing the Bead Roller Kit, use only identical replacement parts.** Follow instructions in the *“Inspection, Maintenance, And Cleaning”* section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

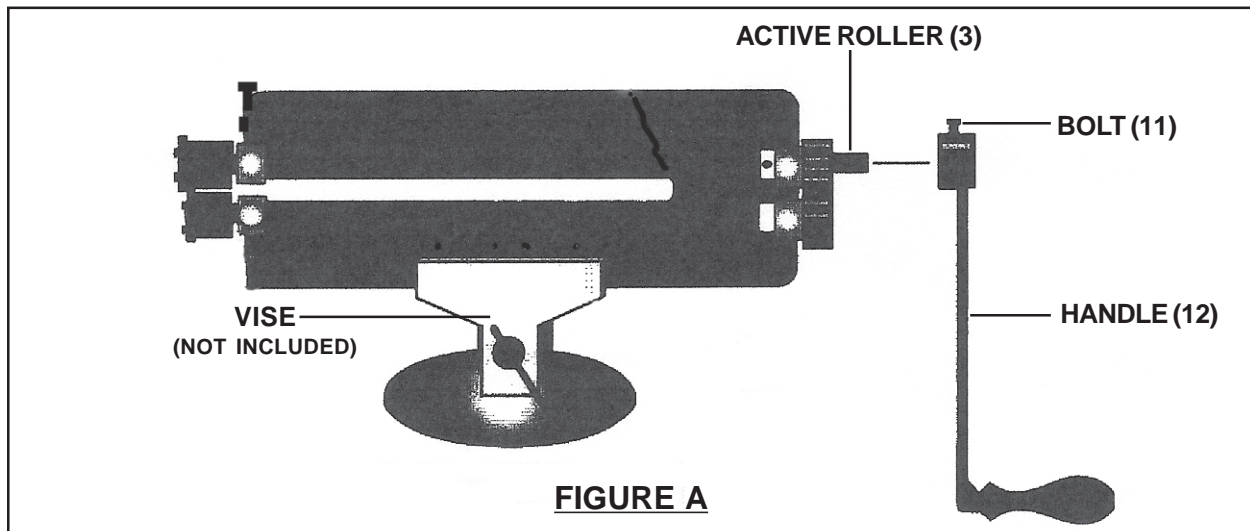
## SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Bead Roller Kit.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. **Use the right product for the job.** There are certain applications for which this product was designed. Do not use small tools, equipment, or attachments to do the work of larger industrial tools, equipment, or attachments. Do not use this product for a purpose for which it was not intended.
3. **Avoid moving parts during operation.** Keep fingers and hands away from gears, rollers, dies, cutting plates, and all moving parts.
4. **Two person operation.** Two people are needed to operate the Bead Roller machine. One person is needed to feed the sheet metal, while a second person cranks the Bead Roller’s handle.
5. **18 Gauge limit.** Do not use the Bead Roller on metal thicker than 18 gauge.
6. **During set up and operation.** Use a standard shop vise (not included) to hold the Bead Roller assembly (see Figure A, page 5). Make sure the vise is bolted or permanently fastened to a flat, level, sturdy workbench capable of supporting the weight of the Bead Roller, vise, workpieces, and any additional tools.
7. **Industrial applications must follow OSHA requirements.**
8. **Store idle tools.** When not in use, store the Bead Roller Kit in a clean, dry, safe location out of reach of children.
9.  **WARNING!** The warnings and cautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



## INSTALLATION AND ASSEMBLY INSTRUCTIONS

1. **⚠ CAUTION!** The Bead Roller is heavy. Always use *two* people when lifting or moving the tool.
2. Use a standard shop vise (not included) to securely hold the Bead Roller. Make sure the vise is bolted or permanently fastened to a flat, level, sturdy workbench capable of supporting the weight of the Bead Roller, vise, workpieces, and any additional tools. **(See Figure A.)**
3. Once the Bead Roller is secured in a vise, align the flat inner edge of the Handle (12) with the flat edge of the Active Roller (3). Then, slide the Handle onto the Active Roller. **(See Figure A.)**
4. Use a 3/8" open end wrench to firmly tighten the Bolt (11). **(See Figure A.)**



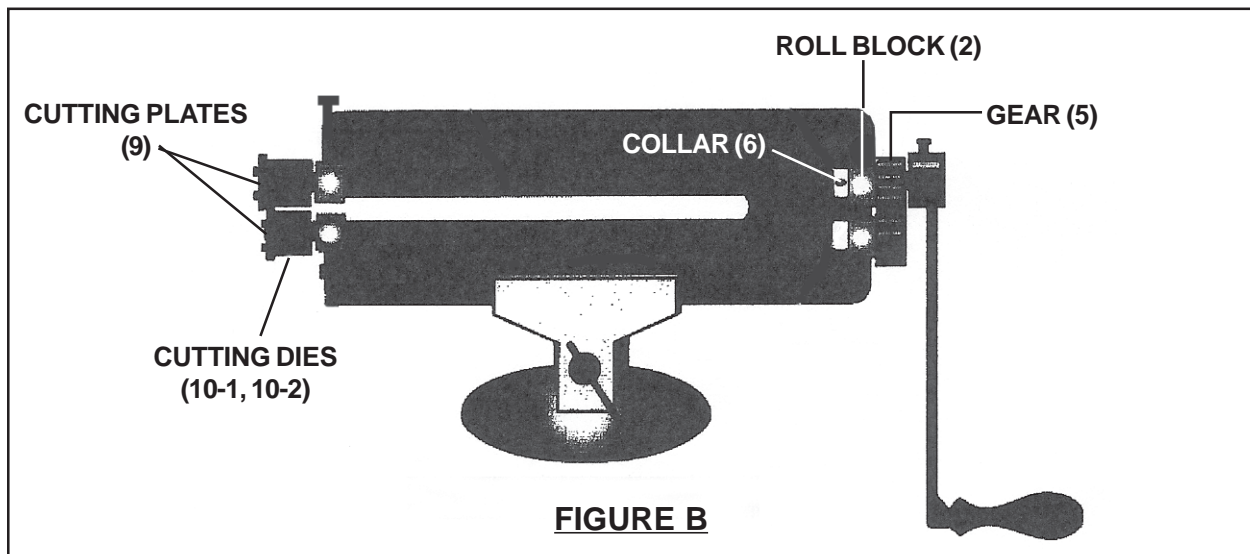
## ALIGNMENT

**NOTE:** The Bead Roller has been factory pre-aligned. However, depending on use the Bead Roller may eventually require re-alignment. Poor alignment will affect the quality of metal forming and the ability of the tool to cut sheet metal. If you experience either of these problems, perform the following alignment steps:

1. Set up the Bead Roller with Cutting Dies (10-1, 10-2) and Cutting Plates (9) as shown in the illustration. **(See Figure B, next page.)**
2. Inspect the Cutting Plates (9). When the Bead Roller is properly aligned, the

edges of the Cutting Plates should be touching (or almost touching). If they are not, perform the following steps:

3. Use the 4mm Hex Key Wrench (27) to loosen the two Hex Bolts (16) that secure the Gear (5) and Collar (6) to the Active Roller (3). **(See Figure B.)**
4. Slide the Active Roller (3) until the edges of the Cutting Plates (9) are touching. **(See Figure B.)**
5. By hand, move the Collar (6) so its edge is touching the Roll Block (2). Then, re-tighten its Hex Bolt (16). **(See Figure B.)**
6. Move the Gear (5) so its side is touching the Roll Block (2). Then, re-tighten its Hex Bolt (16). **(See Figure B.)**
7. **NOTE:** If the edges are touching and the Bead Roller does not cut material properly, adjust the roller tension as discussed in the section ***“Adjusting Roller Tension”*** on page 8 of this manual.



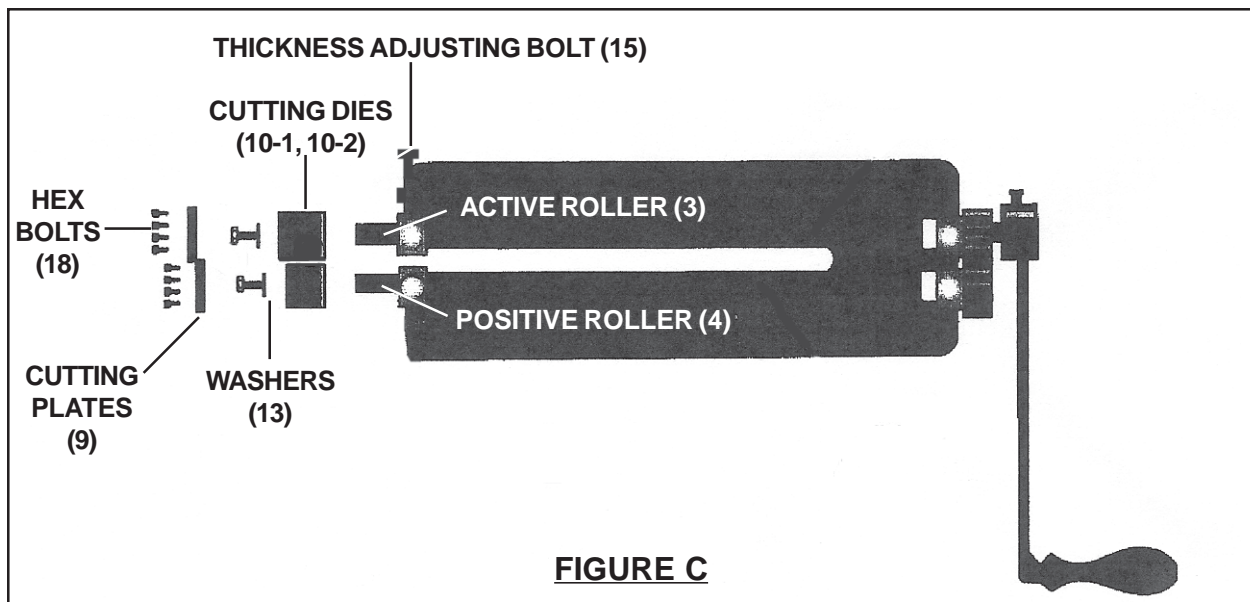
## CHANGING ROLLERS

**NOTE:** The Bead Roller Kit comes with a variety of Bead Dies and Flange Dies, as well as the Cutting Dies and Cutting Plates that are assembled onto the tool before shipping. Use the following instructions when you change Dies:

### ***To remove the Cutting Dies (10-1, 10-2) and Cutting Plates (9):***

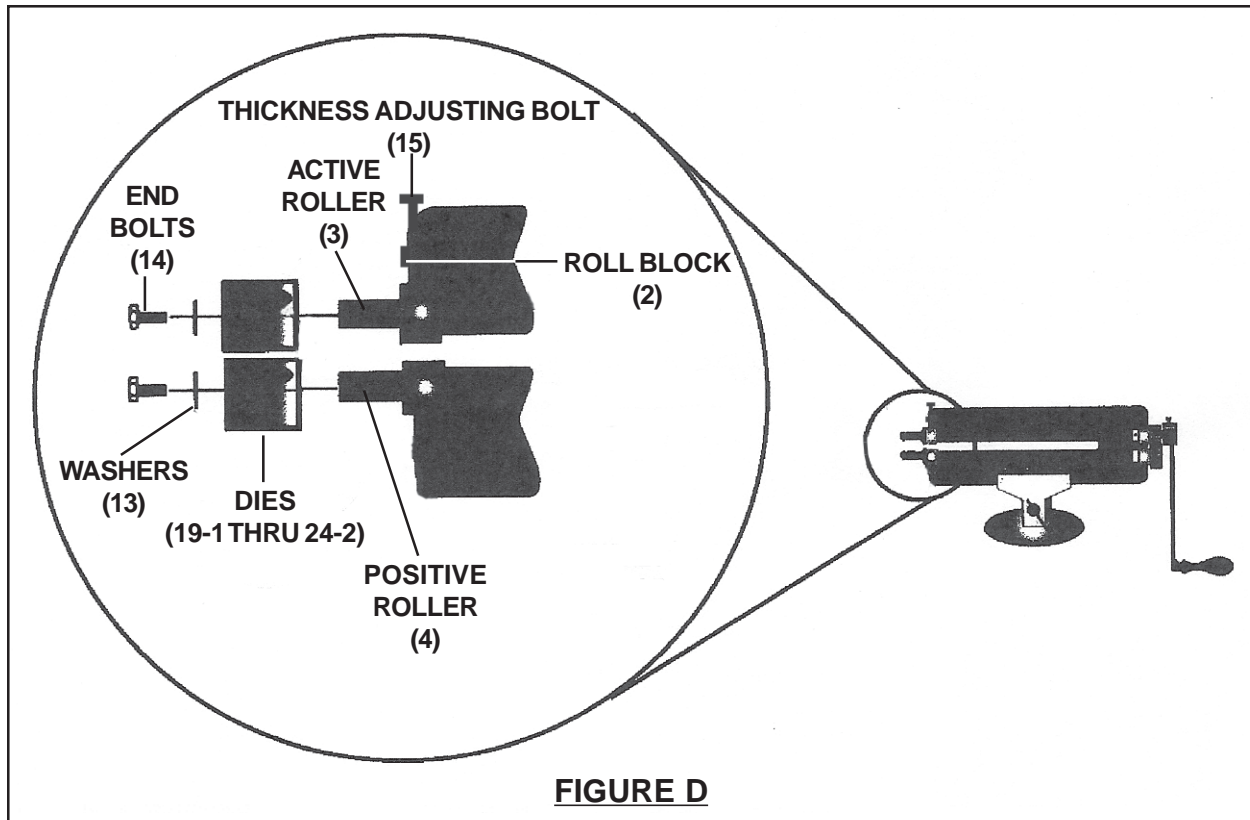
1. Use a 3/8" wrench to loosen the Thickness Adjusting Bolt (15). **(See Figure C, next page.)**

2. Use the 5mm (26) Hex Key Wrench to remove the eight Hex Bolts (18) securing the Cutting Plates (9) to the Cutting Dies (10-1, 10-2). **(See Figure C.)**
3. Remove the Cutting Plates (9). **(See Figure C.)**
4. Use a 14mm wrench to remove the two End Bolts (14) securing the Cutting Dies (10-1, 10-2) to the Active Roller (3) and Positive Roller (4). Then, remove the Washers (13). **(See Figure C.)**
5. Use the 4mm Hex Key Wrench (27) to loosen the Hex Bolts (16) that lock the Cutting Dies (10-1, 10-2) onto the Active Roller (3) and Positive Roller (4). **(See Figure C.)**
6. Remove the Cutting Dies (10-1, 10-2). **(See Figure C.)**



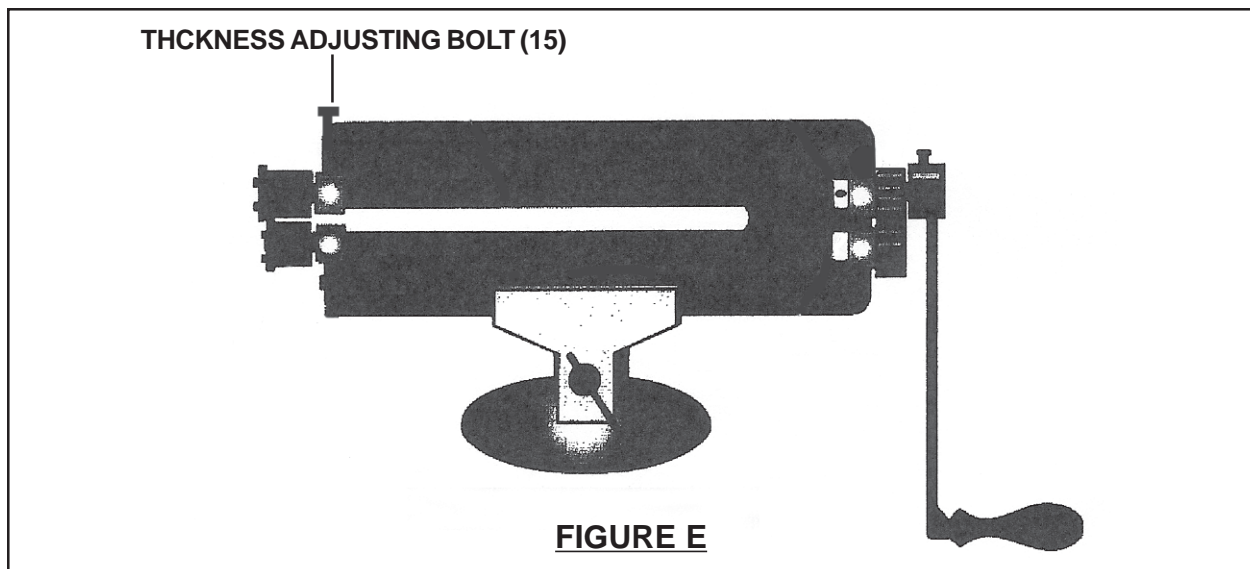
***Installing Bead And Flange Dies:***

1. Select the correct Bead Dies (19-1 thru 21-2) or Flange Dies (22-1 thru 24-2) for the job you are going to perform.
2. Slide both Dies onto the Active Roller (3) and Positive Roller (4) at the same time. Make sure the Hex Bolts (16) on the Dies are positioned over the flat edges of the Active Roller and Positive Roller. **(See Figure D, next page.)**
3. By hand, install the two End Bolts (14). Then, tighten the End Bolts with a 14mm wrench. **(See Figure D.)**
4. Make sure to tighten the two Hex Bolts (16) on the Dies. **(See Figure D.)**



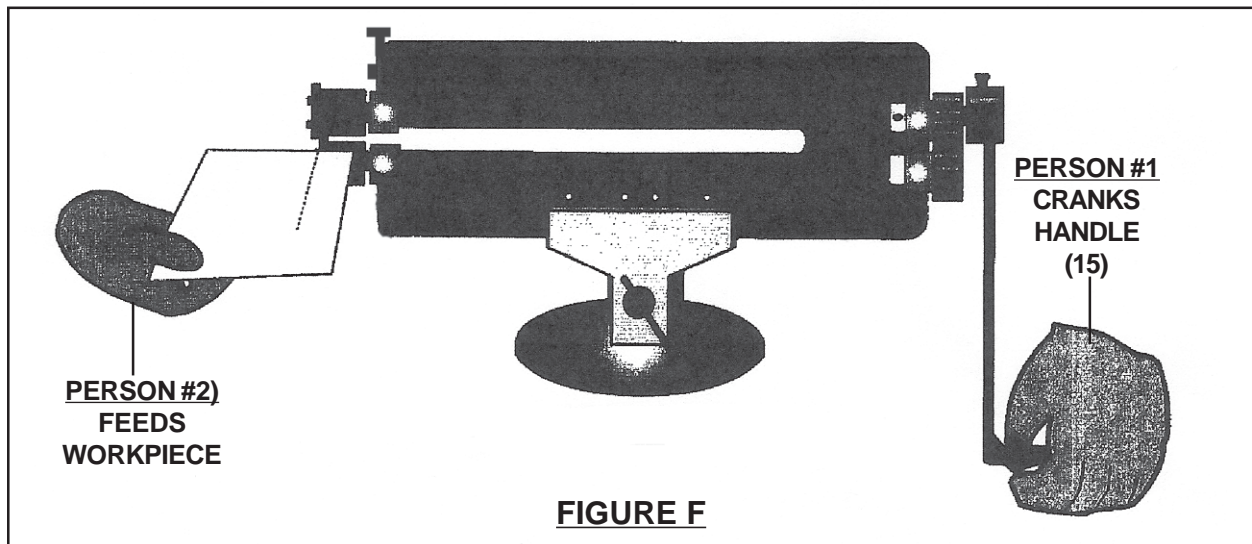
**Adjusting Roller Tension:**

1. Adjust the Thickness Adjusting Bolt (15) only finger tight. **(See Figure E.)**
2. Use a 3/8" wrench to tighten the Thickness Adjusting Bolt (15) 1 to 3 turns, depending on desired results. **(See Figure E.)**




## OPERATING INSTRUCTIONS

1. **⚠ CAUTION!** Do not exceed the maximum thickness capacity (18 gauge) of the Bead Roller.
2. Always use two people to operate the Bead Roller. One person should guide the metal along the Roller while a second person cranks the Handle (12) of the tool. Metal forming typically requires good communication between the person cranking the Handle and the person guiding the metal, particularly on corners.  
**NOTE: It is recommended to practice all cutting/beading procedures first on scrap metal. (See Figure F.)**
3. Mark your rib, flange pattern, or cut-line on the workpiece. **(See Figure F.)**
4. Insert and guide the workpiece through the Cutting Dies or Flange Dies while another person cranks the Handle (12) of the tool. **(See Figure F.)**
5. When finished using the Bead Roller Kit, make sure to store the tool and its accessories in a clean, dry, safe location out of reach of children.



## INSPECTION, MAINTENANCE, AND CLEANING

1. **Before each use**, inspect the general condition of the Bead Roller Kit. Check for misalignment or binding of moving parts, damaged or loose parts, dull or worn Cutting Dies and Flange Dies, and any other condition that may affect the tool's safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
2. **Periodically**, use grease to lubricate all moving parts of the Bead Roller.

3. **To clean**, use a clean cloth and mild detergent or non-flammable solvent. Then, dry.
4.  **CAUTION!** All maintenance, service, and repairs not discussed in this manual should only be performed by a qualified service technician.

## TROUBLESHOOTING

<b>Problem</b>	<b>Possible Solution</b>
Tool not cutting properly or not forming a proper bead.	Check to make sure workpiece is no thicker than 18 gauge.  Check Cutting Dies/Flange Dies for proper alignment.  Make sure all Hex Bolts are tightened.  Check Collars for proper setting and adjustment.  Check for worn Cutting Plates/Flange Dies. If necessary, replace Cutting Plates/Flange Dies.  Lubricate all moving parts.
Handle turns with difficulty.	Check to make sure workpiece is no thicker than 18 gauge.  Check for proper adjustment of Thickness Adjusting Bolt.  Check for damaged parts (Gears, Rollers, Dies, Flanges, etc.)  Lubricate all moving parts.

## PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISKS AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.



## PARTS LIST

Part #	Description	Qty.	Part #	Description	Qty.
1	Base	1	17	Bushing	1
2	Roll Block	4	18	Hex Bolt (M6x10)	8
3	Active Roller	1	19-1	1/2" Half-Round Die (Convex)	1
4	Positive Roller	1	19-2	1/2" Half-Round Die (Concave)	1
5	Gear	2	20-1	3/8" Half-Round Die (Convex)	1
6	Collar	2	20-2	3/8" Half-Round Die (Concave)	1
7	Roll Block Bolt (M14x30)	4	21-1	1/4" Half-Round Die (Convex)	1
8	Flat Washer (14mm)	4	21-2	1/4" Half-Round Die (Concave)	1
9	Cutting Plate	2	22-1	1/4" Flange Die	1
10-1	Long Cutting Die	1	22-2	1/4" Flange Die	1
10-2	Short Cutting Die	1	23-1	1/8" Flange Die	1
11	Bolt (M10x30)	1	23-2	1/8" Flange Die	1
12	Handle	1	24-1	1/16" Flange Die	1
13	Washer (10mm)	2	24-2	1/16" Flange Die	1
14	End Bolt (M10x20)	2	25	Spring Washer (6mm)	8
15	Thickness Adjusting Bolt (M10x30)	1	26	Hex Key Wrench (5mm)	1
16	Hex Bolt (M8x10)	18	27	Hex Key Wrench (4mm)	1

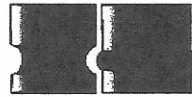
### PART SELECTION GUIDE

**Note: Items are larger than shown in this illustration.**

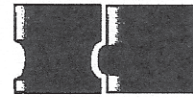
**1/4" HALF-ROUND DIE**  
(21-1, 22-2)



**3/8" HALF-ROUND DIE**  
(20-1, 20-2)



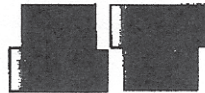
**1/2" HALF-ROUND DIE**  
(19-1, 19-2)



**1/16" FLANGE DIE**  
(24-1, 24-2)



**1/8" FLANGE DIE**  
(23-1, 23-2)



**1/4" FLANGE DIE**  
(22-1, 22-2)



# ASSEMBLY DIAGRAM

**NOTE:**  
Some parts are listed and shown for illustration purposes only,  
and are not available individually as replacement parts.

